International Atomic Energy Agency

CONSULTANTS' GROUP MEETING ON

STABLE ISOTOPE REFERENCE SAMPLES FOR GEOCHEMICAL AND HYDROLOGICAL INVESTIGATIONS

IAEA, Vienna 16 - 18 September 1985

Report to the Director General

by

G. Hut

Scientific Secretary of the Meeting

April 1987

Table IV

Intercomparison of isotopic measurements: $\delta^{13}C$ results in $^{o}/oo$ relative to VPDB and using $\delta^{13}C_{NBS19/VPDB}$=+1.95 $^{o}/oo$

Institute Code	Person responsible	NGS1 (CH_4)	NGS1 (C_2H_6)	NGS1 (C_3H_8)
F-6	J. Baradat	-28.9	-26.4	-19.9
I-4	T. Ricchiuto	-29.16	-26.02	
NL-1	W.G. Mook	-29.16	-25.42	
USA-15	M.Beeunas/M.Schoell	-28.91	-25.93	
USA-16	P.D. Jenden	-28.97	-26.09	-21.67
USA-17	D.C. Boatwright	-28.6	-26.3	

Institute Code	Person responsible	NGS2 (CH_4)	NGS2 (C_2H_6)	NGS2 (C_3H_8)	NGS2 (CO_2)
F-6	J. Baradat	-43.5	-31.1	-24.3	-7.5
I-4	T. Ricchiuto	-44.92	-32.1	-25.9	-8.08
NL-1	W.G. Mook	-44.76	-31.17		-8.02
USA-15	M.Beeunas/M.Schoell	-44.57	-32.06	-25.70	
USA-16	P.D. Jenden	-44.58	-31.84	-25.01	-8.38
USA-17	D.C. Boatwright	-43.1	-31.7	-23.5	-8.9

Institute Code	Person responsible	NGS3 (CH_4)	NGS3 (C_2H_6)
F-6	J. Baradat	-73.1	-59.8
I-4	T. Ricchiuto	-72.85	
NL-1	W.G. Mook	-72.67	
USA-15	M.Beeunas/M.Schoell	-72.77	
USA-16	P.D. Jenden	-72.55	-51.37
USA-17	D.C. Boatwright	-69.6	

Table III

Intercomparison of isotopic measurements: δ^2H results in $^o/oo$

normalized on the VSMOW/SLAP scale

Institute Code	Person responsible	NGS1 (CH_4)	NGS2 (CH_4)	NGS2 (C_2H_6)	NGS3 (CH_4)
I-4	T. Ricchiuto		-173		
NL-1	W.G. Mook	-133.7	-169.4	-114.5	-175.6
USA-16	P.D. Jenden	-141.9	-175.2	-128.2	-176.3

Table VIII

Approximate composition of NGS1, NGS2 and NGS3 in volume %

	NGS1	NGS2	NGS3
CH_4	81.238	52.775	98.825
C_2H_6	2.832	2.650	0.042
C_3H_8	0.387	1.290	0.004
iC_4H_{10}*	0.09	0.26	0.00
nC_4H_{10}*	0.08	0.55	0.01
iC_5H_{12}*	0.01	0.21	0.00
nC_5H_{12}*	0.01	0.22	0.00
nC_6H_{14}*	0.01	0.08	0.00
O_2	0.000	0.000	0.002
N_2	14.265	16.613	1.118
CO_2	0.999	25.143	0.009

Measurements by G.J. van Rossum, N.V. Nederlandse Gasunie, Groningen, The Netherlands.

* Measurements by J. Baradat, Société Nationale Elf Aquitaine, France.

Measurements by T. Ricchiuto, Agip S.p.A. Milano, Italy, G.F. van Rossum and J. Baradat on the same components show deviations from the quoted volume percentage of the components of less than 1%.